“LAB #9”

COURSE:

SOFTWARE CONSTRUCTION AND DEVELOPMENT LAB

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(2021-BSE-032)

TASK:

Make a form and make database connection to form

CREATE TABLE AND ITS COLUMNS:

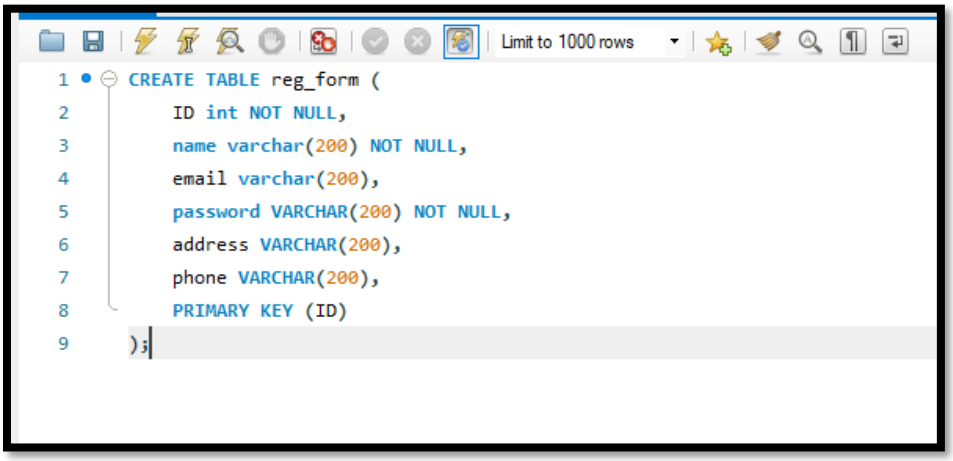
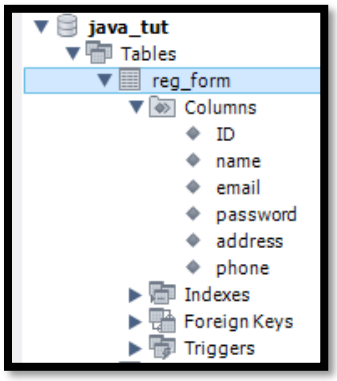
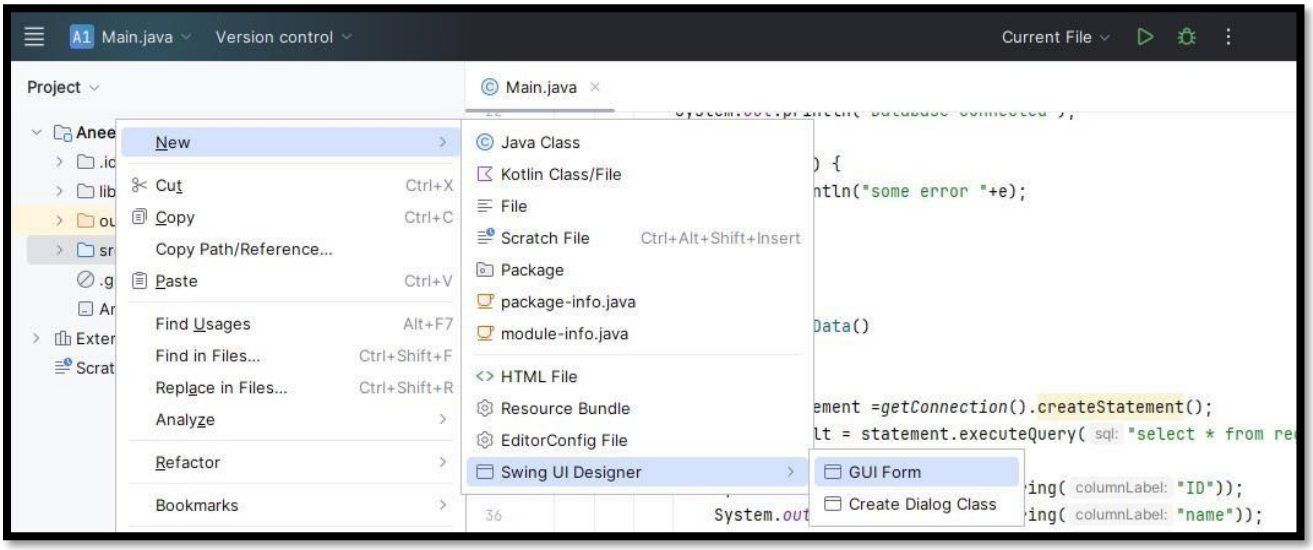


TABLE CONFIRMATION:

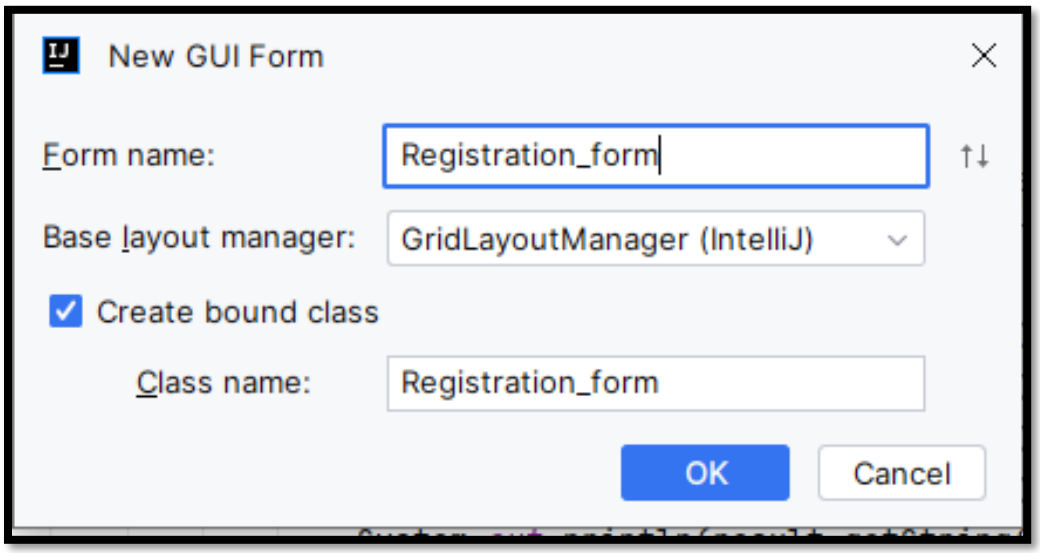


IJ SOFTWARE

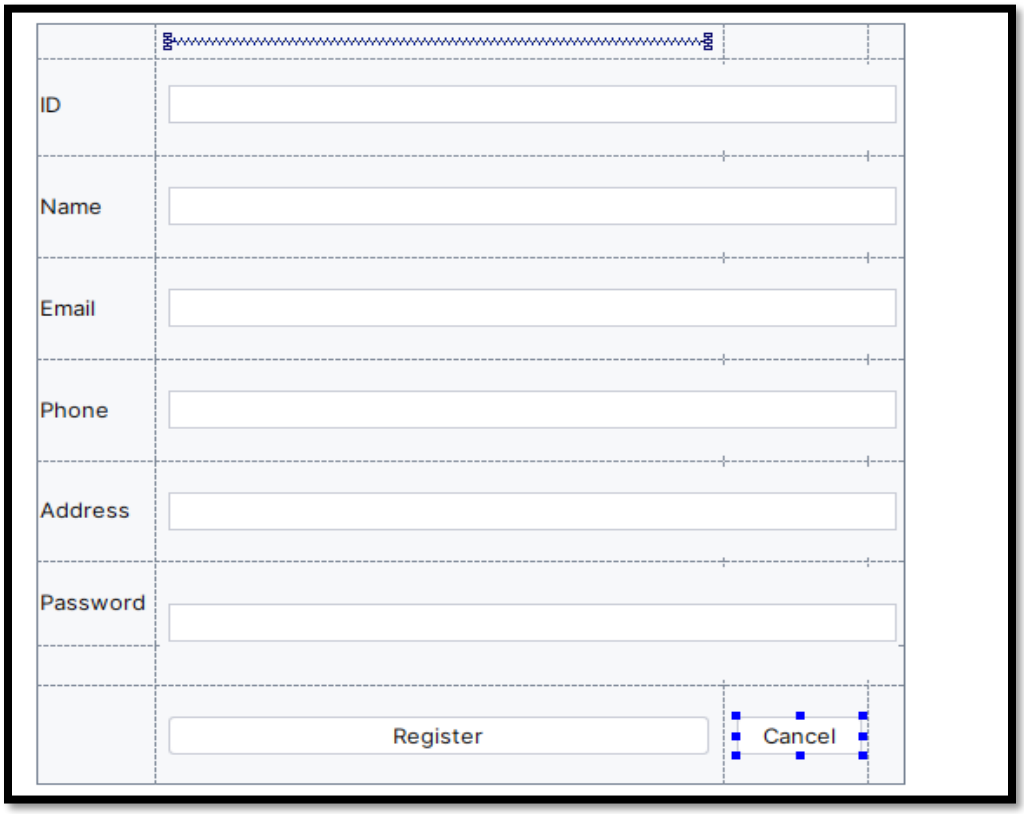
CREATE SWING



SET FORM NAME



FORM



CODE:

Main.java

```java
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;

public class Main {
    public static void main(String[] args)
    {
        getData();
    }

    1 usage
    public static Connection getConnection()
    {
        try{
            String driver = "com.mysql.cj.jdbc.Driver";
            String databaseUrl ="jdbc:mysql://localhost:3306/java_tut";
            String userName="root";
            String password="fjwu";
            Class.forName(driver);
            Connection conn= DriverManager.getConnection(databaseUrl,userName,password);

            System.out.println("Database connected");
            return conn;
        }catch(Exception e) {
            System.out.println("some error "+e);
```

```
        return null;
    }
    1 usage
    public static void getData()
    {
        try{
            Statement statement =getConnection().createStatement();
            ResultSet result = statement.executeQuery( sql: "select * from reg_form");
            while (result.next()) {
                System.out.println(result.getString( columnLabel: "ID"));
                System.out.println(result.getString( columnLabel: "name"));
                System.out.println(result.getString( columnLabel: "email"));
                System.out.println(result.getString( columnLabel: "address"));
                System.out.println(result.getString( columnLabel: "phone"));
                System.out.println(result.getString( columnLabel: "password"));
            }
        }catch (Exception e){
            System.out.println("Error "+e);
        }
    }
}
```

Main.java × Registration_form.java × Registration_form.form

```
import java.sql.Connection;
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.awt.Frame;import java.awt.Window;
public class Registration_form extends Frame{
    1 usage
    private static final String INSERT_QUERY = "INSERT INTO reg_form (id, name, email, phone, address, password) VALUES (?, ?, ?, ?, ?, ?)";
```

Main.java × Registration_form.java × Registration_form.form

```
    private JTextField textField1;
    1 usage
    private JTextField textField2;
    1 usage
    private JTextField textField3;
    1 usage
    private JTextField textField4;
    1 usage
    private JTextField textField5;
    1 usage
    private JPasswordField passwordField1;
    1 usage
    private JLabel ID;
    1 usage
    private JLabel Name;
    1 usage
    private JLabel Email;
```

```
1 usage
20  Ab      private JLabel Phone;
1 usage
21  Ab      private JLabel Address;
1 usage
22  Ab      private JLabel Password;
1 usage
23          private JPanel Confirm;
1 usage
24  OK      private JButton registerButton;
2 usages
25  OK      private JButton cancelButton;
26
        no usages
27          public Registration_form() {
28              cancelButton.addActionListener(new ActionListener() {
29                  @Override
30                  public void actionPerformed(ActionEvent e) {
31
32                  }
33              });
34          }
```

```
36      public static void main(String[] args) {
37
38          JFrame frame = new JFrame( title: "Registation");
39          frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
40
41          // Create the labels
42          JLabel ID = new JLabel( text: "ID:");
43          JLabel Name = new JLabel( text: "Name:");
44          JLabel Email = new JLabel( text: "Email:");
45          JLabel Phone = new JLabel( text: "Phone:");
46          JLabel Address = new JLabel( text: "Address:");
47          JLabel Password = new JLabel( text: "Password:");
48
```

```
50          // Create the text fields
51          JTextField textField1 = new JTextField();
52          JTextField textField2 = new JTextField();
53          JTextField textField3 = new JTextField();
54          JTextField textField4 = new JTextField();
55          JTextField textField5 = new JTextField();
56          JPasswordField passwordField1 = new JPasswordField();
57          JButton cancelButton = new JButton( text: "Cancel");
58          // Create the submit button
59          JButton submitButton = new JButton( text: "Register");
60          submitButton.addActionListener(new ActionListener() {
61              @Override
62              public void actionPerformed(ActionEvent e) {
63                  // Get the entered data
64                  String id = textField1.getText();
65                  String name = textField2.getText();
66                  String email = textField3.getText();
67                  String phone = textField4.getText();
68                  String address = textField5.getText();
69                  String password = new String(passwordField1.getPassword());
```

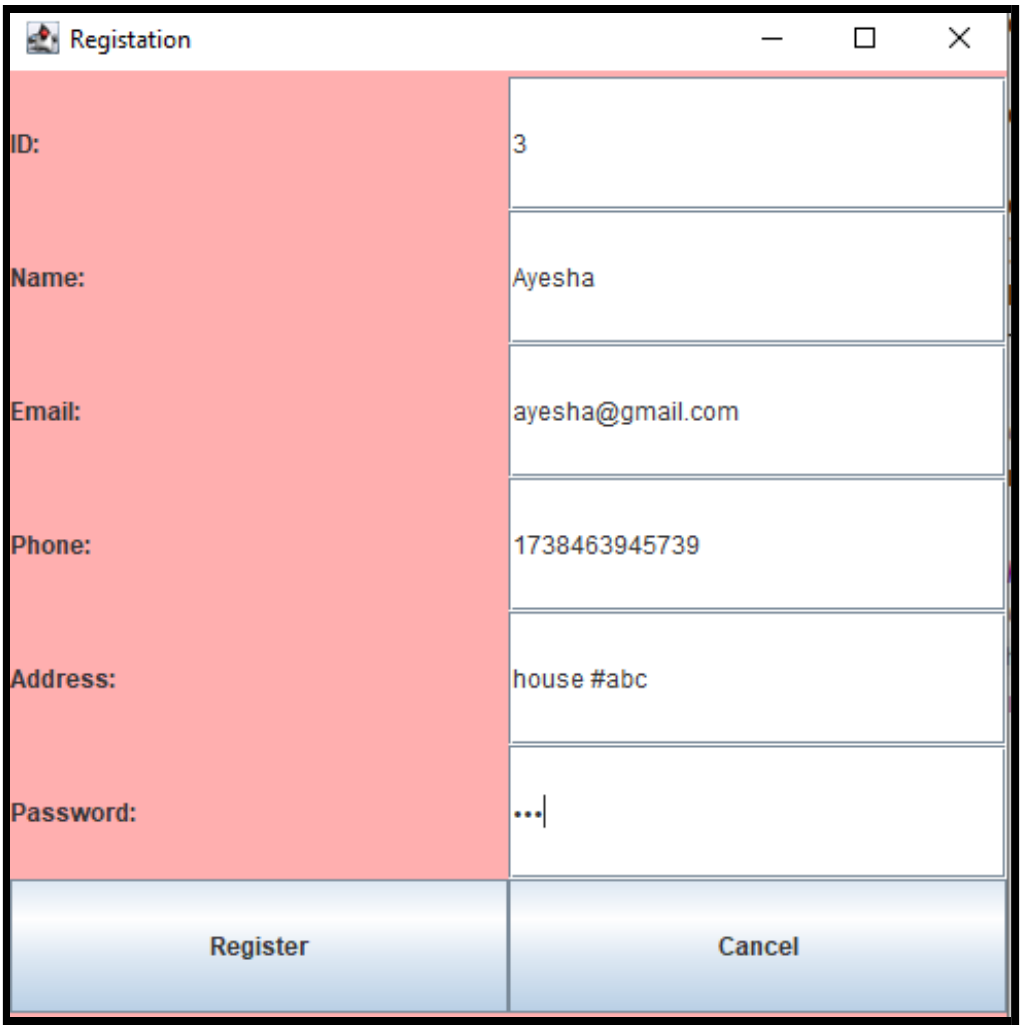
```
71                  // Store the data in the database
72                  try {
73                      // Set up your database connection and prepared statement
74                      String driver = "com.mysql.cj.jdbc.Driver";
75                      String databaseUrl ="jdbc:mysql://localhost:3306/java_tut";
76                      String userName="root";
77                      String Password="fjwu";
78                      Class.forName(driver);
79                      Connection conn = DriverManager.getConnection(databaseUrl,userName,Password);
80                      PreparedStatement pstmt = conn.prepareStatement(INSERT_QUERY);
81
82                      pstmt.setString( parameterIndex: 1, id);
83                      pstmt.setString( parameterIndex: 2, name);
84                      pstmt.setString( parameterIndex: 3, email);
85                      pstmt.setString( parameterIndex: 4, phone);
86                      pstmt.setString( parameterIndex: 5, address);
87                      pstmt.setString( parameterIndex: 6, password);
88
89                      pstmt.executeUpdate();
```

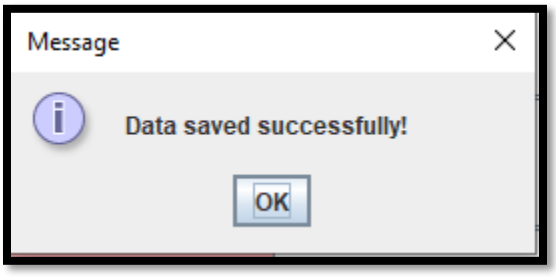
```
91                      // Close the connection and statement
92                      pstmt.close();
93                      conn.close();
94
95                      // Optional: display a success message
96                      JOptionPane.showMessageDialog(frame,  message: "Data saved successfully!");
97                  } catch (Exception ex) {
98                      // If there's an error, display an error message
99                      ex.printStackTrace();
100                     JOptionPane.showMessageDialog(frame,  message: "Error: Failed to save data.");
101                 }
102             }
103         });
```

```
105             // Create the panel
106             JPanel panel = new JPanel(new GridLayout( rows: 7,  cols: 2));
107 
108             // Add components to the panel
109             panel.add(ID);
110             panel.add(textField1);
111             panel.add(Name);
112             panel.add(textField2);
113             panel.add(Email);
114             panel.add(textField3);
115             panel.add(Phone);
116             panel.add(textField4);
117             panel.add(Address);
118             panel.add(textField5);
119             panel.add(Password);
120             panel.add(passwordField1);
121             panel.add(submitButton); // Add the submit button
122         panel.add(cancelButton);
123             // Set panel as the content of the frame
124             frame.getContentPane().add(panel);
```

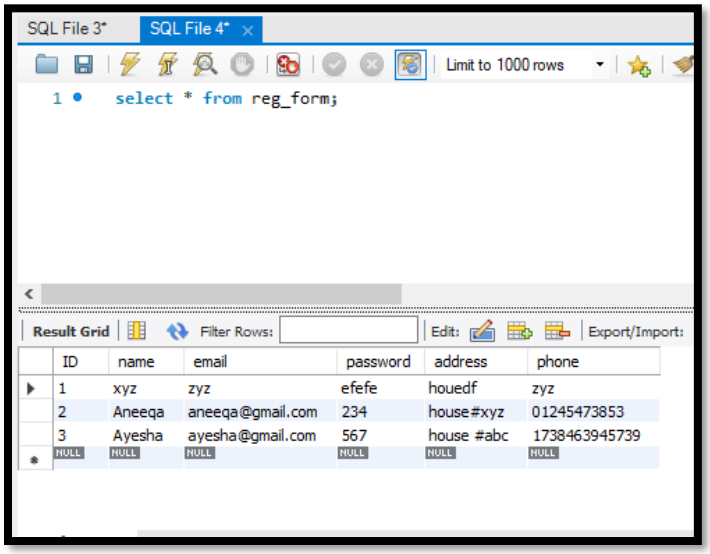
```
126         panel.setBackground(Color.pink);
127                 // Set the size and make the frame visible
128                 frame.setSize( width: 500, height: 500);
129                 frame.setVisible(true);
130 
131             }}
```

OUTPUT:


Registation
ID:
3
Name:
Ayesha
Email:
ayesha@gmail.com
Phone:
1738463945739
Address:
house #abc
Password:
Register
Cancel


Message
Data saved successfully!
OK

SHOW TABLE DATA IN MYSQL DATABASE



ID	name	email	password	address	phone
1	xyz	zyz	efefe	houedf	zyz
2	Aneeqa	aneeqa@gmail.com	234	house#xyz	01245473853
3	Ayesha	ayesha@gmail.com	567	house #abc	1738463945739
NULL	NULL	NULL	NULL	NULL	NULL